ESSENTIAL ELEMENTS OF EFFECTIVE TEAMWORK: SHARED UNDERSTANDING AND DIFFERENCES BETWEEN SPECIAL EDUCATORS AND RELATED SERVICE PROVIDERS

BONNIE L. UTLEY
University of Colorado at Denver

MARY JANE K. RAPPORT
University of Colorado Health Sciences Center

ABSTRACT

Collaborative teamwork is viewed by many as a characteristic of effective working relationships between adults who provide special education and related services in educational settings. Although a substantial body of research exists on the philosophy and practice of collaborative teamwork, the contributions of veteran team members regarding which elements of this knowledge base they view as essential has been largely absent. The purpose of the present study was to obtain the opinions of practicing team members regarding those elements of teamwork they found essential, as well as those they view as non-essential, to their professional practice. The responses of 46 team members (17 special educators, 9 occupational and physical therapists, and 20 speech and language pathologists), were obtained through their completion of a questionnaire. The questionnaire was organized according to three professional practice themes of teamwork: 1) the philosophy of collaborative teamwork; 2) collaborative team structures; and 3) collaborative team functions. Team members indicated which elements within each professional practice theme they viewed as essential to the knowledge base for service on collaborative educational teams. Responses were variable within and across the three themes with the strongest support expressed

for the process of collaborative problem solving. The implications of these data for the practice of collaborative teamwork in contemporary public schools are explored.

The effectiveness with which adults work together in educational settings is an area of interest and concern as reflected in the research on contemporary schooling practices (Friend & Cook, 2000; Lipsky & Gartner, 1997; Utley & Rapport, 2000; Walther-Thomas, Korinek, McLaughlin, & Williams, 2000). Indeed, the extensive professional literature on teamwork is replete with descriptions of those elements associated with team effectiveness.

A framework that may be used to organize the literature base to date is to conceptualize the elements of teamwork along three dimensions: 1) the philosophical underpinnings of teamwork; 2) the structures (formal and informal) that impact the dynamics of how team members interact with one another; and 3) the functions, or activities, of service provision through which team members practice their disciplinary expertise.

A number of authorities have described the necessity for members of a single team to share a similar philosophy about their collective work. Some of the beliefs that underlie active engagement in a transdisciplinary team model include recognition of the need to share discipline-referenced methods with one another (Campbell, 1987; Hutchinson, 1978; Utley & Rapport, 2000; Woodruff & McGonigel, 1988), a willingness to adopt processes or norms that guide *interaction* between team members (Friend & Cook, 2000; Walther-Thomas, Korinek, McLaughlin, & Williams, 2000), and active integration of parents as full participants in all aspects of teamwork (Carney & Gamel-McCormick, 1996; Giangreco, Cloninger, & Iverson, 1993; Orelove and Sobsey, 1996).

A second dimension of teamwork examined in the literature is the set of *structures* that underlie the ability of adults to work together. Some of the structures include interpersonal and communication skills development (Begin, Gallagher, & Kindred, 1997; Friend & Cook, 2000), an understanding of the stages of professional development that may impact team members individually, as well as how those stages may be influenced when change or innovation is introduced into the educational setting, (Orelove and Sobsey, 1996; Walther-Thomas, Korinek, McLaughlin, & Williams, 2000; Whitaker, 1993), sensitivity to how one another's roles are defined (and expanded as appropriate) (Dunn, 1991; Giangreco, 1996; Rainforth, York, & Macdonald, 1992), and some typical leadership styles, as well as team member roles, that

are fulfilled in the context of team meetings (Fox & Williams, 1991; Givner & Haager, 1995).

A review of the literature on structures through which team members relate to one another often reveals the term *collaboration* (Friend & Cook, 2000; Walther-Thomas, Korinek, McLaughlin, & Williams, 2000). Although the term collaboration is used frequently in conjunction with the concept of teamwork, the two terms are not synonymous. Friend and Cook (2000) describe collaboration as a style for direct interaction. Collaboration may also be described as the nature of the interpersonal relationship between equal parties as they work toward a common goal. Professionals who value collaboration as an interaction style hold a belief that the expanded expertise that becomes available in this context leads to outcomes that are superior in quality to those achieved by people working in isolation from one another (Utley & Rapport, 2000).

A third dimension of teamwork addressed by a number of authorities is service provision, specifically the collective fulfillment of a range of team functions or activities. These activities typically begin with assessment and continue through the processes of IEP development, implementation, and evaluation (Lipsky & Gartner, 1997; Orelove & Sobsey, 1996). These functions may be conceptualized as the "work" of teams.

Despite the substantive focus on teamwork and collaboration in the professional literature, the knowledge base of effective teamwork elements remains relatively uninformed by the voices of those who are part of this process. Indeed, despite the depth and breadth of professional interest on this topic, the opinions of veteran team members regarding what *they* believe to be essential knowledge and skills for effective team membership is largely missing. The present study provides some preliminary data regarding the viewpoints of veteran team members as to which teamwork elements they found essential for their professional practice in educational settings. Specifically, the opinions of these team members were solicited to determine their level of agreement or disagreement with the broad range of elements associated with effective teamwork drawn from the literature. These data were collected as well to help reveal if team members from various disciplines have a *shared* understanding of what it means to be a team. The degree to which members from the traditions of both special education and allied health (related service providers) share an understanding of effective teamwork elements may offer insight as to the continuing struggles some team members experience as they go about their collective work. These data may also suggest that those areas that reflect *differences* in understanding between special educators and related service providers be addressed for members of

both groups at the pre-service level (Givner & Haager, 1995; Pugach, 1996), as well as in the arena of professional development (Lipsky & Gartner, 1996; Sands, Kozleski, & French, 2000).

METHOD

PARTICIPANTS

The participants in this study were 17 special educators and 29 related service providers (9 occupational and physical therapists as well as 20 speech and language pathologists). All participants in this study were employees of one, or both, of two agencies in Western Pennsylvania. One agency served children with disabilities of preschool age under a contractual agreement with the Department of Education in the Commonwealth of Pennsylvania. The second agency, whose employees served children and youth of school age, was an Intermediate Unit. Intermediate Units are the middle tier of a three tiered public educational system in the Commonwealth of Pennsylvania. Each Intermediate Unit is comprised of representatives from neighboring school districts who collectively provide some services to students with low incidence disabilities, and also provide technical assistance to teachers and other professionals in the delivery of educational and related services.

The group of special educators served children with low incidence disabilities and was comprised of three teachers of school age children; the remaining six were early intervention service providers. The nine occupational and physical therapists provided related services across all nine classrooms in which children with low incidence disabilities were served; the speech-language pathologists served these same classrooms but also served children and youth with less severe disabilities across a range of early intervention and school-age programs throughout the county.

Professionals from both agencies collaborated on a federally funded project designed to promote the application of innovative practices in collaborative teamwork. The participants had served children and youth with disabilities and their families for an average of 14 years; the range of experience was 2–27 years. Thus, this group was not new to the field, or their professions, and could be considered to be veterans in their work.

QUESTIONNAIRE DEVELOPMENT

The opinions of the participants regarding essential elements of effective teamwork were obtained through completion of a questionnaire designed explicitly for this purpose. The content of the questionnaire was based on a review of the literature in special education and related services. This review identified the opinion of authorities as to the knowledge and skills that are viewed as essential for special educators and related service providers to engage in effective teamwork. The intent in administering the questionnaire was to gain the opinion of veteran team members on which elements of this knowledge base they considered essential to their practice of effective teamwork.

The questionnaire consisted of three sections, each describing a particular *theme of professional practice* in effective teamwork. Organization of questionnaire items into the themes of professional practice was based on the conceptual framework used to review the professional literature on this topic. The themes of professional practice were: 1) the philosophy of collaborative teamwork; 2) collaborative team structures; and, 3) collaborative team functions.

The three themes of professional practice were further organized into multiple *theme components,* each focusing on a particular dimension of the professional practice theme. An example of a theme component in the first professional practice theme (philosophy of collaborative teamwork) was *the benefits of the transdisciplinary team*; an example in the third professional practice theme (collaborative team functions) was *IEP development.*

The questionnaire consisted of 82 items distributed across the three professional practice themes; each item described an element of teamwork. The sections of the questionnaire varied in the number of items; this was dependent, at least in part, upon the relative frequency of published work that addressed each component. Table 1 summarizes the organizational framework of the questionnaire according to the three professional practice themes, the more detailed theme components, and the number of questionnaire items in each section. The content of an early draft of the questionnaire was supplemented with input from various professionals before administration of the questionnaire was undertaken.

Study participants responded to each questionnaire item by indicating whether they *agreed* that the teamwork element described was an essential element of the knowledge base for special educators and related service providers to work together effectively, or whether they believed an item

TABLE 1.
Organizational Structure of the Questionnaire into Three Professional Practice Themes

Title of Professional Practice Theme	Title of Theme Component	Number of Items
Philosophy of collaborative teamwork	An historical perspective on various models of team functioning	4
	The benefits of the transdisciplinary team	3
	Legal justification for the provision of related services	4
	Resolving differences in team philosophy	7
Collaborative team structures	The concept of "stages" of professional development and the relationship of these stages to change	7
	Interpersonal communication	19
	Determining the form(s) of role expansion	11
	The "mechanics" of team interaction	5
Collaborative team functions	The types and order of assessment practices	4
	IEP/Program development	8
	IEP/Program implementation	5
	IEP/Program evaluation	5

reflected a *nonessential* element of the knowledge or skills in the repertoire of effective team members.

RESULTS

The relative degree of support for each teamwork element is expressed as a percentage of team members who agreed that an element of teamwork was essential to their professional practice. Table 2 summarizes the opinion of these respondents for all 82 items of the questionnaire. Within Table 2, the percentages of agreement for each questionnaire item are displayed for the total number of study participants, as well as separately for the group of special educators and the combined group of related service providers (occupational and physical therapists, speech-language pathologists). As revealed in Table 2, the results were variable across all three professional practice themes, as well as across theme components within professional practice themes. Generally, however, the majority of the teamwork elements articulated in this questionnaire were viewed positively by the majority of these respondents regardless of their disciplinary framework. Seventy-one percent (n = 58) of the 82 questionnaire items were rated as essential by 60% or more of the members from both groups, with 24% (n = 20) of the items rated as essential by 80% of the respondents. Only 4% (n = 3) of the items were rated essential by less than 50% of these veteran team members.

In addition to the generally positive regard for the content of the questionnaire expressed by the majority of these respondents, the results shown in Table 2 also reveal that these respondents expressed shared agreement on some specific elements of the teamwork knowledge base, as well as differences on other teamwork elements. Shared agreement can be inferred if members of both groups expressed high percentages of agreement regarding the essential nature of certain teamwork elements, as well as low percentages of agreement across both groups regarding a particular teamwork element. Differences between the two groups can be inferred if there was a substantial difference in the percentage of agreement expressed by members of both groups regarding whether an element was essential (or not) to the practice of effective teamwork.

Those items with shared agreement may reflect shared meaning, or shared understanding of what it means to be a team. Those items with substantive differences between the two groups may suggest that members of the two groups viewed teamwork in dissimilar ways. To explore the similarities and differences between the two groups, three forms of data analysis were undertaken: 1) those elements of the knowledge base that enjoyed particu-

TABLE 2.
Percentage of Support for All Questionnaire Items Across the Three Practice Themes

Title of Theme Component	Topic of Questionnaire Item	Percentage of All Respondents (Across Disciplines) Who Rated the Item as Having Value for Team Members	Percentage of Related Service Providers Who Rated the Item as Having Value for Team Members	Percentage of Special Educators Who Rated the Item to Have Value for Team Members
An historical perspective on various models of team functioning	1. The origin of the multidisciplinary team; roles and responsibilities	74%	72%	76%
	2. The origin of the interdisciplinary team; roles and responsibilities	78%	76%	82%
	3. The origin of the transdisciplinary team; roles and responsibilities	80%	83%	76%
	4. Professional practices that facilitate and interfere with the integrated delivery of related services	76%	76%	76%
The benefits of the transdisciplinary team	5. For students and families (longitudinal vs. episodic implementation of thera-	76%	69%	76%

peutic input)

6. For teachers and related service providers to engage in joint problem-solving	85%	83%	88%
7. How this team structure may meet the need to "belong"	43%	41%	53%
Legal justification for the provision of related services			
8. Definition of related services in IDEA	87%	90%	82%
9. Outcome of the Rowley Case re. the provision of related services	74%	66%	88%
10. Outcome of the Tatro Case re. the provision of related services	72%	66%	82%
11. Implications of federal legislation for provision of related services in early intervention	87%	93%	76%
Resolving differences in team philosophy			
12. The importance of team members from all disciplines sharing a common philosophy about teamwork	89%	86%	94%
13. The importance of team members from all disciplines sharing the belief that they are responsible for sharing and combining their methods, and applying their techniques across a range of environments	93%	93%	94%
14. Clarification of the misconceptions about transdisciplinary team function-	83%	86%	76%

TABLE 2.
Continued

Title of Theme Component	Topic of Questionnaire Item	Percentage of All Respondents (Across Disciplines) Who Rated the Item as Having Value for Team Members	Percentage of Related Service Providers Who Rated the Item as Having Value for Team Members	Percentage of Special Educators Who Rated the Item to Have Value for Team Members
	ing (e.g., providing therapy in a classroom is "integrated therapy")			
	15. Implementation of the transdisciplinary team model results in consistent and comprehensive programs to a greater degree than multi- or interdisciplinary approaches	65%	66%	65%
	16. Higher program quality results from collaborative teamwork when compared with teams whose members work in isolation	80%	90%	65%

17. A team approach to assessment facilitates a focus on the "whole" child	89%	93%	82%
18. Importance of parents as team members in supporting the need for related services as well as how those services are provided	89%	86%	94%
The concept of "stages" of professional development; the relationship of these stages to change and innovation			
19. The stages of professional development (e.g. renewal)	30%	17%	53%
20. Impact of change or innovation may require adjustment in the stages of professional development	37%	24%	59%
21. The stages of concern about innovation	37%	17%	71%
22. Levels of use of an innovation (e.g., introduction, routine use)	28%	14%	53%
23. Use of situational leadership to respond appropriately to fellow team members who are experiencing change or innovation	41%	38%	47%
24. Rationale for, and techniques to maintain self-concept and positive attitudes during change or innovation	63%	52%	82%
25. The possibility of increased vulnerability during change and innovation	28%	21%	41%
Interpersonal communication			
26. Definition of interpersonal communication	61%	52%	76%

TABLE 2.
Continued

Title of Theme Component	Topic of Questionnaire Item	Percentage of All Respondents (Across Disciplines) Who Rated the Item as Having Value for Team Members	Percentage of Related Service Providers Who Rated the Item as Having Value for Team Members	Percentage of Special Educators Who Rated the Item to Have Value for Team Members
	27. Enhancement of communication skills through mutual respect, active listening, as well as jargon-free oral and written communication	80%	83%	76%
	28. Paraphrasing words of the speaker as a form of validating the perception of a message	59%	62%	53%
	29. Importance of effective non-verbal communication	50%	52%	47%
	30. Examples of effective non-verbal communication methods	39%	41%	35%

Item			
31. Basic sources of misunderstanding that may produce communication failures	80%	83%	76%
32. Methods of effective oral communication (e.g., organization of thought before speaking)	72%	72%	71%
33. Methods of effective written communication (e.g., avoidance of jargon)	76%	76%	76%
34. Use of active, ongoing listening skills	57%	55%	65%
35. Method of acknowledging the viewpoints of others during interaction	50%	55%	41%
36. Problem-solving strategies that result in satisfactory group decisions	98%	97%	100%
37. Decision-making processes for IEP planning, implementation, and evaluation	96%	96%	100%
38. Guidelines for the constructive and objective use of feedback	87%	86%	88%
39. Guidelines for giving and receiving positive comments	61%	57%	65%
40. Giving "credit" to fellow team members	52%	45%	65%
41. Management of conflict and/or confrontation during team meetings	85%	83%	88%
42. Sources of true conflict (e.g., difference about beliefs)	59%	52%	71%

TABLE 2.
Continued

Title of Theme Component	Topic of Questionnaire Item	Percentage of All Respondents (Across Disciplines) Who Rated the Item as Having Value for Team Members	Percentage of Related Service Providers Who Rated the Item as Having Value for Team Members	Percentage of Special Educators Who Rated the Item to Have Value for Team Members
	43. Sources of school conflict (e.g., differentiation of functions)	65%	59%	76%
	44. Conflict/confrontation management within the school organization	80%	72%	94%
Determining the form(s) of role expansion	45. Definition of role transition	67%	62%	76%
	46. Processes of role transition (e.g., role extension, role enrichment)	72%	66%	82%
	47. Identification of when a particular level of role transition is appropriate or inappropriate	65%	66%	65%

Item			
48. Practices to support role transition (e.g., share information with colleagues during assessment)	78%	83%	71%
49. Definition of collaborative consultation	80%	83%	76%
50. Stages of the collaborative consultation process	85%	93%	71%
51. Guidelines for use of interpersonal skills during the collaborative consultation process	46%	38%	59%
52. Levels of readiness to enter a consultative relationship	63%	55%	76%
53. Assessment of the readiness to enter a consultative relationship	65%	59%	76%
54. Overcoming unwillingness to enter a consultative relationship so acceptance can be gained	78%	76%	82%
55. The "stages" of learning of the consultee and its impact on the consultative relationship	54%	59%	47%
The "mechanics" of team interaction			
56. Elements of effective teams (e.g., joint goal setting)	87%	83%	94%
57. Steps in conducting a team meeting	80%	79%	82%
58. The importance of rotating the role of team leader during team meetings	70%	59%	88%

TABLE 2.
Continued

Title of Theme Component	Topic of Questionnaire Item	Percentage of All Respondents (Across Disciplines) Who Rated the Item as Having Value for Team Members	Percentage of Related Service Providers Who Rated the Item as Having Value for Team Members	Percentage of Special Educators Who Rated the Item to Have Value for Team Members
	59. The importance of rotating the role of recorder during team meetings	63%	45%	94%
	60. Typical leadership styles (e.g., "selling," delegating)	76%	66%	94%
The types and order of assessment practices	61. Use of ecological/environmental techniques to identify the contexts and functional targets for instruction	63%	62%	65%
	62. Use of discipline-specific assessment to determine how an individual's disability may influence his or her functioning on potential IEP objectives	87%	93%	76%

63. Team assessment data are the foundation for collaborative problem-solving to develop a profile of student strengths and needs	87%	86%	88%
64. Team members commit to an ongoing assessment process including observation in a variety of environments	93%	93%	94%
IEP/Program development			
65. Teams use a collaborative process for IEP development including assessment data from which interventions are developed	87%	86%	88%
66. Team members relate priorities from the perspective of their own disciplines across a range of environments	74%	79%	65%
67. Priorities that form the basis for the IEP are determined jointly through a process referenced to environmental demands	83%	90%	71%
68. Members of multiple disciplines integrate their methods into a single IEP	85%	83%	88%
69. Goals generated in isolation may exclude objectives necessary for integration of students' skills across environments	78%	72%	88%

TABLE 2.
Continued

Title of Theme Component	Topic of Questionnaire Item	Percentage of All Respondents (Across Disciplines) Who Rated the Item as Having Value for Team Members	Percentage of Related Service Providers Who Rated the Item as Having Value for Team Members	Percentage of Special Educators Who Rated the Item to Have Value for Team Members
	70. The importance of having parents and family members attend assessment and planning activities prior to the formal IPE meeting to select priority goals	80%	76%	88%
	71. The selection of intervention methods is determined by team members in a decision making process	89%	83%	82%
	72. How intervention methods from multiple disciplines can be combined to promote acquisition of functional skills across environments	87%	90%	82%

IEP/Program			
IEP/Program implementation			
73. A variety of data collection strategies are used to monitor intervention effectiveness	74%	79%	65%
74. Interventions are selected jointly, as are the evaluation criteria for determining the effectiveness of the intervention	78%	79%	76%
75. Intervention plans are developed by the team	89%	93%	82%
76. Individualized adaptations are to be developed by various team members to maximize student participation across environments	80%	86%	71%
77. Team members determine when, and by whom, interventions will be implemented in a decision making process	87%	90%	82%
IEP/Program evaluation			
78. Team members collaborate in a data-based process to evaluate the IEP	67%	66%	71%
79. Data are used to signal the need for adjustment to an intervention plan	76%	76%	76%
80. A variety of data collection strategies are used to assist the process of problem identification and clarification re. the success or failure of an intervention	72%	72%	71%

TABLE 2.
Continued

Title of Theme Component	Topic of Questionnaire Item	Percentage of All Respondents (Across Disciplines) Who Rated the Item as Having Value for Team Members	Percentage of Related Service Providers Who Rated the Item as Having Value for Team Members	Percentage of Special Educators Who Rated the Item to Have Value for Team Members
	81. Brainstorming is used to problem solve alternative interventions	89%	90%	88%
	82. Alternative goal selection is guided by the application of criteria determined by the team in a problem-solving process	76%	83%	65%

larly high agreement across special educators and related service providers as to their importance in the practice of effective teamwork; 2) those teamwork elements that were viewed as having little value by either group; and 3) teamwork elements that were viewed differently by the group of special educators and the group of related service providers.

SHARED AGREEMENT ACROSS BOTH GROUPS REGARDING ESSENTIAL ELEMENTS IN THE KNOWLEDGE BASE

Shared agreement as to the importance of particular elements of effective teamwork was determined by analyzing those items rated as essential by 80% or more of the members of each group. Of the 82 items in the questionnaire, this criterion was met on 20 items distributed across all three professional practice themes. The items that met this criterion of shared agreement are summarized in Table 3; results specific to each professional practice theme, and related theme components, are reported in the same order as the organization of the questionnaire.

PROFESSIONAL PRACTICE THEME I—PHILOSOPHY OF COLLABORATIVE TEAMWORK

The first theme component that included a questionnaire item meeting the criterion of shared agreement was *The benefits of the transdisciplinary team*. The item stated that transdisciplinary teamwork is beneficial because it provides access to joint problem solving. *Legal justification for the provision of related services*, the subsequent theme component, also produced one questionnaire item that was rated essential by over 80% of the respondents in both groups. This item articulated the legal definition of related services within IDEA.

The theme component *Resolving differences in team philosophy* included four questionnaire items that were rated "essential" by both groups. The first of these items articulated the importance of team members sharing a common philosophy. A second item within this theme component described the importance of team members sharing a belief that members from *all* disciplines are responsible for sharing and combining their methods, and applying their techniques across a range of environments. This item generated almost identical levels of agreement across the two groups; ninety-three percent of related service providers and 94% of special educators rated this belief as essential to effective teamwork.

TABLE 3.
Agreement of At Least 80% Across Both Groups Regarding the Essential Nature of the Teamwork Elements

Title of Theme Component	Topic of Questionnaire Item	Percentage of Related Service Providers Who Rated the Item as Having Value for Team Members	Percentage of Special Educators Who Judged the Item to Have Value for Team Members
The benefits of the transdisciplinary team	For teachers and related service providers to engage in joint problem-solving	83%	88%
Legal justification for the provision of related services	Definition of related services in IDEA	90%	82%
Resolving differences in team philosophy	The importance of team members from all disciplines sharing a common philosophy about teamwork	86%	94%
	The importance of team members from all disciplines sharing the belief that they are responsible for sharing and combining their methods, and applying their techniques across a range of environments	93%	94%
	A team approach to assessment facilitates a focus on the "whole" child	93%	82%
	Importance of parents as team members in supporting the	86%	94%

TABLE 3.
Continued

Title of Theme Component	Topic of Questionnaire Item	Percentage of Related Service Providers Who Rated the Item as Having Value for Team Members	Percentage of Special Educators Who Judged the Item to Have Value for Team Members
	need for related services as well as how those services are provided		
Interpersonal communica-tion	Problem-solving strategies that result in satisfactory group decisions	97%	100%
	Decision-making processes for EP planning, implementation, and evaluation	96%	100%
	Guidelines for the constructive and objective use of feedback	86%	88%
	Management of conflict and/or confrontation during team meetings	83%	88%
The "mechan-ics" of team interaction	Elements of effective teams (e.g., joint goal setting)	83%	94%
The types and order of assessment practices	Team assessment data are the foundation for collaborative problem-solving to develop a profile of student strengths and needs	86%	88%
	Team members commit to an ongoing assessment process including observation in a vari-ety of environments	93%	94%

TABLE 3.
Continued

Title of Theme Component	Topic of Questionnaire Item	Percentage of Related Service Providers Who Rated the Item as Having Value for Team Members	Percentage of Special Educators Who Judged the Item to Have Value for Team Members
IEP/Program development	Teams use a collaborative process for EP development including assessment data from which interventions are developed	86%	88%
	Members of multiple disciplines integrate their methods into a single EP	83%	88%
	The selection of intervention methods is determined by team members in a decision making process	83%	82%
	How intervention methods from multiple disciplines can be combined to promote acquisition of functional skills across environments	90%	82%
IEP/Program implementation	Intervention plans are developed by the team	93%	82%
	Team members determine when, and by whom, interventions will be implemented in a decision making process	90%	82%
IEP/Program evaluation	Brainstorming is used to problem solve alternative interventions	90%	88%

Two other items with shared levels of high agreement within this theme component—how team approaches to assessment facilitate a focus on the "whole" child, and the importance of parents to effective teamwork—support the need for related services, and in shaping how those services are provided.

PROFESSIONAL PRACTICE THEME II—TEAM STRUCTURES

Two of the four theme components in the second professional practice theme included items rated as essential by 80% or more members of both groups. The first of these theme components was *Interpersonal communication*. This was the largest theme component in the questionnaire, consisting of 19 items. Of this total, four items were rated as essential: 1) problem solving strategies; 2) decision-making strategies; 3) constructive, objective use of feedback; and 4) techniques of managing conflict and confrontation during team meetings. One other questionnaire item in this professional practice theme produced shared levels of agreement; this item identified the elements of effective teams (e.g., joint goal setting) under the theme component titled the "mechanics" of team interaction.

PROFESSIONAL PRACTICE THEME III—TEAM FUNCTIONS

The third professional practice theme generated nine items that were rated by 80% or more of the respondents in both groups as essential elements of effective teamwork. The first theme component (the types and order of assessment practices) included two items that met this criterion: 1) the use of team assessment data as the foundation for collaborative problem solving to develop a profile of student strengths and needs; and 2) the necessary commitment of team members to ongoing assessment, including observation across a range of environments.

The theme component *IEP Development* produced high agreement on four items: 1) the use of a collaborative process in IEP development that begins with assessment data from which common goals are identified; 2) that IEPs consist of a single set of integrated methods contributed by members of multiple disciplines; 3) the use of a decision-making process to select intervention methods; and 4) the combination of intervention methods from multiple disciplines to promote acquisition of functional skills in a range of contexts.

The theme component *IEP implementation* produced agreement across both groups regarding two essential elements of the teamwork knowledge base: 1) intervention plans are created by all member of the team working in

collaboration with one another; and 2) a decision-making process is used to determine when, and by whom, the intervention plan is to be implemented.

The final component in this professional practice theme was *IEP evaluation*. Only one questionnaire item generated shared agreement: that brainstorming in the context of a problem solving process be used to select alternative interventions when initial attempts have proven unsuccessful.

SHARED AGREEMENT ACROSS BOTH GROUPS AS TO NON-ESSENTIAL ELEMENTS IN THE TEAMWORK KNOWLEDGE BASE

The criterion for determining shared agreement as to *non-essential* elements of the knowledge base was 50% or fewer members of both groups agreeing on the importance of an element of effective teamwork. Data on only three of the 82 questionnaire items met this criterion. All three items were found in the second professional practice theme—team structures. Two of the three items were in the theme component *The concept of stages of professional development and the relationship of those stages to change and innovation*. Specifically, an item that addressed the use of situational leadership to respond appropriately to fellow team members who are experiencing change and innovation was favored by only 38% of the related service providers and 47% of the special educators. The possibility that periods of change and innovation may be associated with increased vulnerability was favored by 21% of the related service providers and 41% of the special educators.

In the subsequent theme component *Interpersonal communication*, effective nonverbal communication was viewed as essential by only 41% of the related service providers and 35% of the special educators. A summary of these three items is found in Table 4.

DISAGREEMENT BETWEEN THE TWO GROUPS AS TO ESSENTIAL ELEMENTS IN THE TEAMWORK KNOWLEDGE BASE

This analysis was done to identify those items that produced substantive disagreement between the two groups regarding their relative importance for the teamwork knowledge base. The criterion established for identification of these teamwork elements was a difference equal to or greater than 20% between the two groups. A total of 17 questionnaire items produced this degree of difference; a summary of these teamwork elements is found in Table

TABLE 4
Items With Agreement Across Both Groups Regarding the Non-Essential Nature of the Teamwork Elements

Title of Theme Component	Topic of Questionnaire Item	Percentage of Related Service Providers Who Rated the Item as Having Value for Team Members	Percentage of Special Educators Who Judged the Item to Have Value for Team Members
The concept of "stages" of professional development; the relationship of these stages to change and innovation	Use of situational leadership to respond appropriately to fellow team members who are experiencing change or innovation	38%	47%
	The possibility of increased vulnerability during change and innovation	21%	41%
Interpersonal communication	Examples of effective non-verbal communication methods	41%	35%

5. Again, the results specific to each professional practice theme, and related theme components, are reported in the same order as organization of the questionnaire.

PROFESSIONAL PRACTICE THEME I—THE PHILOSOPHY OF
COLLABORATIVE TEAMWORK
One item in the third theme component, *Legal justification for related services*, produced criterion level disagreement. The outcome of the Rowley Case was viewed as important by 66% of the related service providers but 88% of the

TABLE 5
Disagreement Between the Two Groups of At Least 20%
Regarding the Essential Nature of the Teamwork Elements

Title of Theme Component	Topic of Questionnaire Item	Percentage of Related Service Providers Who Rated the Item as Having Value for Team Members	Percentage of Special Educators Who Judged the Item to Have Value for Team Members
Legal justification for the provision of related services	Outcome of the Rowley Case re. the provision of related services	66%	88%
Resolving differences in team philosophy	Higher program quality results from collaborative teamwork when compared with teams whose members work in isolation	90%	65%
The concept of "stages" of professional development; the relationship of these stages to change and innovation	The stages of professional development (e.g. renewal)	17%	53%
	Impact of change or innovation may require adjustment in the stages of professional development	24%	59%
	The stages of concern about innovation	17%	71%
	Levels of use of an innovation (e.g., introduction, routine use)	14%	53%
	Rationale for, and techniques to maintain self-concept and positive attitudes during change or innovation	52%	82%

TABLE 5.
Continued

Title of Theme Component	Topic of Questionnaire Item	Percentage of Related Service Providers Who Rated the Item as Having Value for Team Members	Percentage of Special Educators Who Judged the Item to Have Value for Team Members
	The possibility of increased vulnerability during change and innovation	21%	41%
Interpersonal communication	Definition of interpersonal communication	52%	76%
	Giving "credit" to fellow team members	45%	65%
	Conflict/confrontation management within the school organization	72%	94%
Determining the form(s) of role expansion	Stages of the collaborative consultation process	93%	71%
	Guidelines for use of interpersonal skills during the collaborative consultation process	38%	59%
	Levels of readiness to enter a consultative relationship	55%	76%
The "mechanics" of team interaction	The importance of rotating the role of team leader during team meetings	59%	88%
	The importance of rotating the role of recorder during team meetings	45%	94%
	Typical leadership styles (e.g., "selling," delegating)	66%	94%

special educators. In the subsequent theme component, *Resolving differences in team philosophy,* 90% of related service providers but only 65% of special educators supported the questionnaire item that stated "higher program quality results from teamwork characterized by collaboration, when compared with teams whose members work in isolation from one another."

PROFESSIONAL PRACTICE THEME II—TEAM STRUCTURES

This professional practice theme generated a large number of questionnaire items characterized by disagreement between members of both groups. This was particularly true for items in the first theme component *Stages of professional development and the relationship of those stages to change and innovation.* Responses on six of the seven items in this component met the criterion of difference between the two groups. This trend began with the first questionnaire item in this theme component which described the stages of professional development. This teamwork element was viewed as essential by 17% of the related service providers and 53% of the special educators. The same trend was seen in five more items within this theme component; in all cases a higher percentage of special educators agreed that the questionnaire items described essential teamwork elements than their colleagues who were related service providers. These items were: 1) the impact of change and innovation on adjustment in the stages of professional development; 2) the stages of concern about innovation; 3) levels of use of an innovation; 4) techniques to maintain a positive attitude during change and innovation; and 5) the possibility for increased physical vulnerability during change and innovation.

The second theme component in this section, *Interpersonal Communication,* also produced variable levels of agreement across the two groups. The definition of interpersonal communication was valued by only 52% of the related service providers but 76% of the special educators. Giving "credit" to fellow team members as a form of feedback was valued by 45% of the related service providers and 65% of the special educators. Finally, management of conflict and confrontation within the school organization was viewed as essential by only 62% of the related service providers compared to 94% of the special educators.

The presence of criterion level differences between the groups continued to persist throughout this professional practice theme. The same trend was evident in the subsequent theme component *Determining the forms of role transition.* This section contained questionnaire items on two different topics, four items on role transition and seven items on collaborative consultation. None of the items on role transition generated criterion level differences. Three of the seven items that addressed the practice of collabo-

rative consultation did, however. A definition of the stages of the consultation process was seen as essential by 93% of the related service providers, but only 71% of the special educators. This trend was then reversed on two items in this theme component with special educators viewing "guidelines for interpersonal skills during consultation" as more important than the related service providers (59% to 38%); and 76% of special educators but only 55% of the related service providers expressing value for "knowledge of the readiness to enter a consultative relationship."

The last theme component on which criterion level differences were seen was *The "mechanics" of team interaction*. There were only five items in this theme component but three of the five were viewed differently by the two groups. In all three items, the special educators agreed with the essential nature of the teamwork elements more so than the related service providers. These differences were seen on the importance of rotating the role of "leader" during team meetings (88% to 59%), as well as the role of recorder (94% to 45%). This same trend was seen on the questionnaire item that identified typical leadership styles that may arise in team meetings (94% to 66%).

No differences equal to or greater than 20% were seen on any items in the third and final professional practice theme—team functions.

DISCUSSION

INTERPRETATIONS OF DATA IN SUPPORT OF A SHARED UNDERSTANDING OF TEAMWORK

Analysis of the percentage of shared agreement revealed four consistent themes regarding which elements of the teamwork knowledge base were viewed as essential, as well as which elements were rated as non-essential, by both groups.

The first theme is the consistent support for knowledge and skill in the area of problem solving. Support for problem solving was seen across all three professional practice themes beginning in Professional Practice Theme I—The philosophy of collaborative teamwork. Specifically, members of both groups embraced knowledge of the opportunity to engage in joint problem solving as one benefit of transdisciplinary service delivery. Support for problem-solving continued into Professional Practice Theme II—Team structures, as the interpersonal skills necessary to participate in problem-solving were one of the few skills in the theme component *Interpersonal Communication* rated as essential by over 80% of the members of both groups.

Problem solving was supported as well in Professional Practice Theme III. Both groups rated the use of assessment data as the foundation for problem solving during development of a student profile to be an essential element of effective teamwork. The use of brainstorming within a problem solving framework to generate alternative interventions for those proven unsuccessful also generated high levels of support.

An interpretation of the data in support of problem solving is found in the work of Villa and Thousand (1994) who stated:

> Collaborating adults are able to generate new conceptualizations and novel solutions to the daily challenges presented by a diverse student population through the synergistic processes of *collective induction* (i.e., inducing general principles together that no one could induce individually) and *process gain* (i.e., generating new ideas through group interaction that are not generated when people work alone). (p. 81)

The widespread support for problem solving across all three professional practice themes reveals an apparent recognition on the part of these respondents as to the value of these synergistic processes.

Although there was a strong expression of support for problem solving at both the levels of philosophy and practice, other trends in these data suggest that the majority of these respondents adopted a posture described by Johnson and Pugach (1996) as "individualistic." An individualistic posture may be inferred from the reluctance expressed by these veteran team members to embrace the full range of interpersonal communication skills (e.g., giving and accepting positive feedback, validating the perceptions of others, active listening, etc.) articulated in Professional Practice Theme II. Overall, those teamwork skills that guide people to engage in adult-adult interaction were supported to only a limited degree by these respondents. Regrettably, an individualistic posture may limit how expertise is utilized to the fullest extent, particularly if the primary processes that create the structure for team interaction is an individual, case-by-case, problem solving approach. Although the literature suggests that an individualistic posture may be potentially problematic for many teams, the degree to which these team members embraced the full range *team functions* described in the final professional practice theme suggests that their ambivalence about interpersonal skill development may not have diminished their ability to carry out these functions well.

The second theme in the data that may suggest a shared understanding of essential elements of the teamwork knowledge base was the willingness of both groups to share and combine intervention methods from their respec-

tive disciplinary frameworks. Again, support for this theme was seen at the level of philosophy and in practice. Items that described the necessity for a single IEP document to be developed that reflects methods drawn from multiple disciplines were supported across a range of questionnaire sections.

The third theme in support of a shared understanding of effective teamwork is the importance of assessment data expressed by these respondents. Support for this theme was seen in more than one theme component, including the use of assessment as the focus of collaborative problem solving in determining a profile of student strengths and needs and a commitment to ongoing assessment processes including observation across environments.

The fourth and final theme reflecting shared understanding across both groups was decision-making. Support for this teamwork element was seen in Professional Practice Themes II and III. An item describing the interpersonal skills necessary for participation in decision-making was supported by both groups, as was the recognition of decision-making as a necessary process to select intervention methods. Finally, decision-making as the means for determining when, and by whom interventions will be implemented was highly favored by both groups as well.

Another subset of these data support the concept of shared understanding across disciplines although the trend in the data differs from those described above. This trend was seen in those questionnaire items that were rated as essential by *fewer* than 50% of the members of both groups. This small number of items (n = 3) were all found in Professional Practice Theme II—Team Structures. An item describing the use of situational leadership to respond appropriately to fellow team members who are undergoing change and innovation was rejected, as were two other items found in the subsequent theme component *Interpersonal Communication*. These latter items addressed the "possibility of increased vulnerability during change and innovation," and "elements of effective non-verbal communication."

INTERPRETATIONS OF DATA THAT REVEAL DIFFERENT UNDERSTANDINGS OF TEAMWORK

The data that revealed *differences* between members of both groups are limited to the first two professional practice themes. Some interpretations of these data are discussed for each of these Professional Practice Themes in sequence.

PROFESSIONAL PRACTICE THEME I

Two items in this professional practice theme generated substantive differences between the two groups. A questionnaire item on the Rowley Case, which addressed the concept of "educational benefit" from service provision, was viewed differently by members of the two groups. It is possible that this legal decision, because it did not impact the practice of occupational or physical therapy, nor speech-language pathology, may have been viewed as irrelevant to these related service providers.

The second item that generated differences, however, addressed the belief that higher program quality results from collaborative teamwork. Interpretation of the result on this item may be more problematic. A full 90% of the related service providers rated as essential the belief that collaborative teamwork results in higher program quality as compared to 65% of the special educators. This difference is somewhat puzzling, especially given the high levels of support that other items related to the benefits of the transdisciplinary team enjoyed from the special educators who comprised this group. For example, a number of the hallmarks of collaborative teamwork articulated in the questionnaire were rated "essential" by these special educators including items regarding a shared philosophy about teamwork, a shared belief regarding the responsibility for sharing and combining methods, and the focus on the "whole child" that is facilitated when team approaches to assessment are used. Clearly, these other data sources drawn from the questionnaire reveal the high regard these special educators expressed for key elements of collaborative teamwork.

An interpretation for the *differences* in viewpoints of program quality is that related service providers who work in educational settings have already made a choice to work outside of the medical or clinical settings that dominate the professional identity of many of their colleagues. This choice may reflect their explicit embrace of the concept of transdisciplinary service provision. Conversely, the special educators were prepared specifically for the educational settings in which they found themselves. It is possible they had not made the same degree of choice in selecting which form of service provision they would provide, and did not recognize all of the advantages that result from the transdisciplinary team model.

PROFESSIONAL PRACTICE THEME II

The section of the questionnaire that produced the most dramatic data in terms of differences between the groups is the first theme component within Professional Practice Theme II—Team Structures. This theme component, *The stages of professional development and the relationship of these stages to change*

and innovation, consisted of seven items. Differences between the two groups equal to or greater than 20% were seen on six of the seven items. Although the overall support for this theme component was lower than most other sections of the questionnaire, the special educators rated all of these items much higher than the related service providers.

The perception of impact from change and innovation may differ across groups of school professionals who serve within the same educational settings for a variety of reasons. One interpretation of these data is related to the itinerant roles fulfilled by the related service providers compared to the special educators who served these children and their families on a daily basis. The special educators may have been more aware of the public scrutiny of educational practice whereas the related service providers may have been less aware of the day-to-day challenges inherent in service provision for children with low incidence disabilities.

A second possible interpretation of these data lies in the length of time that had passed since formal preparation of many of the related service providers. These respondents had practiced their respective professional roles for an average of 14 years; only one related service provider had less than seven years of experience. It may be that their pre-service programs had failed to address issues of change and innovation; an expectation addressed more explicitly in current preparation programs. These data suggest, however, that all professionals who serve in the dynamic arena of contemporary educational settings be prepared for the impact of change on their personal and professional lives.

It is also suggested that professionals who serve as team members in educational settings be able to respond to public demands for change in a thoughtful fashion. Clearly, these team members, with their broad support for problem solving, have their practice grounded in a skill that is a large part of the change process in educational settings (Patterson, 1993). Their support for the process of decision-making may be interpreted in a parallel fashion as this skill is also invaluable in those settings where school professionals experience change and innovation. Clearly, these veteran service providers supported the importance of a repertoire of broad based skills useful in the change process.

In addition to the differences in the first theme component of this Professional Practice Theme, there were differences as well within the theme component *Interpersonal Communication*. This was seen in the presence of the three items that were viewed as non-essential by members of both groups in this section, as well as many of those items that were viewed differently by both groups. An interpretation for these data may be drawn from the field of

cooperative learning (Johnson & Johnson, 1987, 1994). One of the characteristics of cooperation is small group skills in communication and conflict management. Although some support for conflict management was seen in these data, the support for communication development was less clear. Only 21% of the items in the theme component *Interpersonal Communication* reflected shared understanding across both groups.

Differences between the two groups were also seen in those items devoted to collaborative consultation in the subsequent theme component. A high level of agreement was expressed by related service providers for knowing the *stages* of the consultation process as compared to special educators. Conversely, all of the items that addressed interpersonal aspects of consultation (e.g., guidelines for interpersonal skills during the consultation process, levels of readiness to enter a consultative relationship, assessment of the willingness to enter a consultative relationship) were rated higher by the special educators. It may be that the special educators were most often the consultee in the consultative relationship making them more sensitive to the interpersonal aspects of this process.

The final theme component that revealed substantive differences between the two groups was The *"mechanics" of team interaction*. Three of the five teamwork elements were viewed differently by the two groups including rotation of roles in team meetings (leader and recorder) and typical leadership styles. For the most part, the special educators were the team leaders in these settings and related service providers attended only those team meetings that addressed the needs of the students they served. For this reason, many of these related service providers may have been reluctant to accept rotation through a primary role, or to appreciate the importance of leadership styles. Their itinerant status in these settings may have contributed to these differences in important ways.

CONCLUSIONS

These data are instructive for a number of reasons. These veteran team members expressed overall support for multiple dimensions of teamwork, including the willingness to share and combine methods, engage in problem solving, and participate in a process that permits team members to determine when, and by whom, instructional programs are implemented. They also expressed high levels of shared agreement for the activities, or functions, of their teams as articulated in the third Professional Practice Theme. Although there was inconsistency in the support for interpersonal communication skills, as well as some other aspects of team structure (e.g., the stages of pro-

fessional development), ultimately it is the *actions* of the team's members, beginning with assessment and continuing through IEP development, implementation, and evaluation, that are essential to effective teamwork. In their support of team functions, carried out to a large degree with support of best practices in transdisciplinary service provision, these team members fulfilled the policy statements of the professional organizations that represent their disciplines (e.g., APTA, AOTA).

It is hoped that these data, a preliminary source in identification of shared understanding of teamwork across disciplinary boundaries, may help guide the design of pre-service and in-service preparation for special educators and related service providers. It is hoped as well that these data, and the various interpretations provided, will contribute to the ongoing dialogue regarding *how* to meet the challenge of effective teamwork in contemporary educational settings.

REFERENCES

Bagin, D., Gallagher, D., & Kindred, L. (1997). *The school and community relations* (5th ed.). Boston: Allyn and Bacon.

Campbell, P. H. (1987). The integrated programming team: An approach for coordinating professionals of various disciplines in programs for students with severe and multiple handicaps. *Journal of the Association for Persons with Severe Handicaps, 12*(2), 107–116.

Carney, I. H., & Gamel-McCorrnick, M. (1996). Working with families. In F. P Orelove & D. Sobsey (Eds.), *Educating children with multiple disabilities: A transdisciplinary approach* (3rd edition). Baltimore, MD: Paul H. Brookes Publishing.

Dunn, W. (1991). Integrated related services. In L. H. Meyer, C. A. Peck, & L. Brown (Eds.), *Critical issues in the lives of people with severe disabilities* (pp. 353–377). Baltimore: Paul H. Brookes Publishing Co.

Fox, T. J., & Williams, W. (1991). *Implementing best practices for all students in their local school.* Burlington, VT: Center for Developmental Disabilities, The University Affiliated Program of Vermont.

Friend, M., & Cook, L. (2000). *Interactions: Collaboration skills for school professionals* (3rd ed.). White Plains, NY: Longman.

Giangreco, M. F. (1996). *Vermont interdependent services team approach (VISTA): A guide to coordinated educational support services.* Baltimore: Paul H. Brookes Publishing Co.

Giangreco, M. F., Cloninger, C. J., & Iverson, V. S. (1993). *Choosing options and accommodations for children (COACH): A guide to planning inclusive education*. Baltimore: Paul H. Brookes Publishing.

Givner, C. C., & Haager, D. (1995). Strategies for effective collaboration. In M. A. Falvey (Ed.), *Inclusive and heterogeneous schooling: Assessment, curriculum, and instruction* (pp. 41–57). Baltimore: Paul H. Brookes Publishing.

Hutchinson, D. J. (1978). The transdisciplinary approach. In J. B. Curry & K. K. Peppe (Eds.), *Mental retardation: Nursing approaches to care* (pp. 65–74). St. Louis: C. V. Mosby.

Johnson, D. W., & Johnson, R. T. (1987). Research shows the benefits of adult cooperation. *Educational Leadership, 45*(3), 27–30.

Johnson, R. T., & Johnson, D. W. (1994). An overview of cooperative learning. In J. S. Thousand, R. A. Villa, & A. I. Nevin (Eds.), *Creativity and collaborative learning: A practical guide to empowering students and teachers* (pp. 31–44). Baltimore: Paul H. Brookes Publishing.

Johnson, L. J., & Pugach, M. C. (1996). The emerging third wave of collaboration: Beyond problem-solving. In W. Stainback & S. Stainback (Eds.), *Controversial issues confronting special education: Divergent perspectives* (2nd ed.) (pp. 197–204). Boston: Allyn and Bacon.

Lipsky, D. K., & Gartner, A. (1996). Inclusive education and school restructuring. In W. Stainback and S. Stainback (Eds.), *Controversial issues confronting special education: Divergent perspectives* (2nd edition) (pp. 3–15). Boston: Allyn and Bacon.

Lipsky, D. K., & Gartner, A. (1997). *Inclusion and school reform: Transforming America's classrooms*. Baltimore: Paul H. Brookes Publishing.

Orelove, F. P., & Sobsey, D. (1996). *Educating children with multiple disabilities: A transdisciplinary approach* (3rd ed.). Baltimore: Paul H. Brookes Publishing.

Patterson, J.(1993). *Leadership for tomorrow's schools*. Alexandria,VA: Association for Supervision and Curriculum Development.

Pugach, M.C. (1996). Unifying the preparation of prospective teachers. In W. Stainback and S. Stainback (Eds), *Controversial issues in special education: Divergent perspectives* (2nd edition) (pp. 239–252) Boston: Allyn and Bacon.

Rainforth, B., York, J., & Macdonald, C. (1992). *Collaborative teams for students with severe disabilities: Integrating therapy and educational services*. Baltimore: Paul H. Brookes Publishing Co.

Sands, D. J., Kozleski, E. B., & French, N. K. (2000). *Inclusive education for the 21st century*. Belmont, CA: Wadsworth Publishing.

Utley, B. L., & Rapport, M. K. (2000). Exploring role release in the multidisciplinary team. *Physical Disabilities: Education and Related Services, 28*(2), 89–118.

Villa, R. A., & Thousand, J. S. (1994). One divided by two or more: Redefining the role of a cooperative education team. In J. S. Thousand, R. A. Villa, & A. I. Nevin (Eds.), *Creativity and collaborative learning: A practical guide to empowering students and teachers* (pp. 79–102). Baltimore: Paul H. Brookes Publishing.

Walther-Thomas, C., Korinek, L., McLaughlin, V. L., & Williams, B. T. (2000). *Collaboration for inclusive education: Developing successful programs.* Needham Heights, MA: Allyn and Bacon.

Whitaker, P. (1993). *Managing change in schools.* Philadelphia: Open University Press.

Woodruff, G., & McGonigel, M. J. (1988). Early intervention team approaches: The transdisciplinary model. In J. B. Jordan, J. J. Gallagher, P. L. Hutinger, & M. B. Karnes (Eds.), *Early childhood special education: Birth to three* (pp. 164–181). Reston, VA: Council for Exceptional Children.

Please address correspondence to Bonnie L. Utley, University of Colorado at Denver, Campus Box 106, P.O. Box 173364, Denver, CO 80217-3364; Email: bonnie_utley@ceo.cudenver.edu